



Implementation of an Educational Initiative; Addressing Central Line Associated Bloodstream Infections



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Purpose

Provide a multimodal approach to to hospital wide RN education and competency validation involving high-risk patients with a central venous catheter (CVC)

Background

- Nurses demonstrate annual competence in CLABSI prevention and patient care
- Increased CLABSI cases noted January – March of 2023 as compared to previous year
- Nursing Education Team was charged to develop action plan to retrain all nurses accessing CVCs
- 629 nurses from 26 areas were to receive retraining and evaluation within one month's time

Methods

A Phased approach was used:

- **Phase 1: Nursing Leadership**
 - Identify Lead RN trainer
 - Communicate plan to nurses
- **Phase 2: Nursing Education Team**
 - Design training and competency documents for each department
 - Formal consultation with Lead RN and review of Train-the-Trainer (TTT) Model
 - Assist in communicating re-training process to frontline nurses
- **Phase 3: Lead RN train unit trainers**
 - Lead RN educated and evaluated unit-based trainers
 - Lead RN provided training completion updates
 - Unit-based trainers re-educated and evaluate unit RNs

Three key areas included in retraining consisted of:

1. Sterile Cap Change
2. Daily CLABSI Initiatives and documentation
3. Sterile Dressing Change Procedure (ICUs only)

Results

- The Lead Trainer educated and evaluated 63 unit-based trainers within 9 days of starting this project
- Approximately 328 nursing staff were re-trained by unit-based trainers within the first 19 days of this project
- Overall 98.78% of staff nurses completed the re-training within a 7 week period
- Since the start of re-training, one CLABSI was identified in April and no cases reported in May.

Discussion

- Data revealed a decrease in CLABSI rates from an average of 2.33 CLABSIs/1000 Line days between Jan.-Mar, to 0.76 CLABSIs/1000 Line days in April
- Due to time limitations post re-training and education, there is limited data available to show prolonged reliability on CLABSI education
- Additional follow up is needed to assess long-term implications

Implications

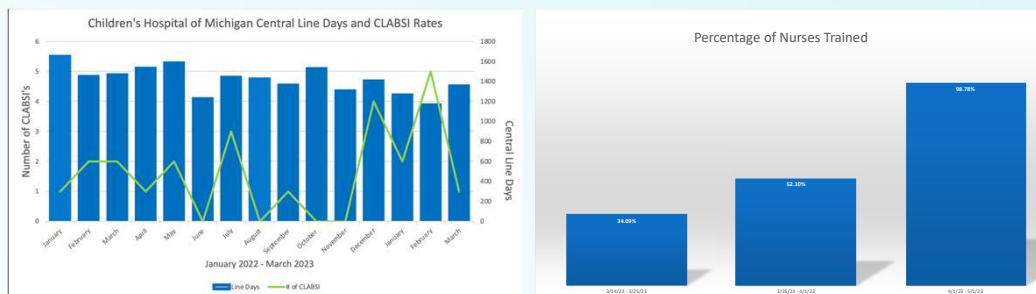
- A blended phased approach of a Train-the-Trainer model allowed for the re-educating of frontline nurses to occur within a short time period.
- Focusing on 3 key areas for all 26 nursing areas provided consistency in education across the organization

Limitations

Numerous limitations were identified by the Lead RN Trainer regarding CLABSI rates and the overall education provided during TTT sessions.

Limitations were:

- Staff turn over
- Increased numbers of new RN still developing CVC care and practices
- Limited availability for additional RNs to assist with sterile procedures in pediatric environment
- Challenges to adhere to CVC access consolidation due to Provider orders or directives
- Challenges in some areas for RNs to maintain knowledge and skill due to low exposure to patients requiring CVC care
- Differing practices amongst the nursing areas
- ICU patients returning post-operatively without CLABSI prevention caps (Microclave®) on CVC lines
- Inconsistent cap change frequencies
- Changes in CVC supplies or product manufacturers
- Limited patient/family CLABSI awareness
- Inconsistent use of family education materials
- Varying knowledge or use of Ethanol/antibiotic lock for CLABSI prevention and prophylaxis
- Decreased availability of CVC support staff
- High patient acuity



CLABSI Competency for CHV RNS: Sterile Cap Change- 2023						
Printed Employee Name:	Initials:	Unit:	Competency Statement:	Competent:	Not Competent:	Signature:
<p>Competency Statement: Nurse must understand and demonstrate Central Line Sterile Cap procedure as per CLABSI Prevention</p> <p>CLABSI Prevention and Prevention</p> <p>D- Discussion O- Observed</p> <p>Sterile Cap Change Procedure</p> <p>1. Perform hand hygiene using alcohol-based hand sanitizer.</p> <p>2. Prepare a sterile cap and disinfectant preparation to cap and disinfect central line.</p> <p>3. Open Cap change kit and inspect for damage.</p> <p>4. Place cap on the line and secure it.</p> <p>5. Discard the cap change kit in a biohazard container.</p> <p>6. Document the procedure in the patient's chart.</p>						
Employee Signature:	Date:					

CLABSI Competency for CHV RNS: Central Line Dressing Change- 2023						
Printed Employee Name:	Initials:	Unit:	Competency Statement:	Competent:	Not Competent:	Signature:
<p>Competency Statement: Nurse must demonstrate knowledge of CLABSI prevention and implement CLABSI interventions for patients with central lines</p> <p>CLABSI Prevention and Prevention</p> <p>D- Discussion O- Observed</p> <p>Central Line Dressing Change Procedure</p> <p>1. Perform hand hygiene using alcohol-based hand sanitizer.</p> <p>2. Prepare a sterile dressing and disinfectant preparation to cap and disinfect central line.</p> <p>3. Open dressing kit and inspect for damage.</p> <p>4. Place dressing on the line and secure it.</p> <p>5. Discard the dressing kit in a biohazard container.</p> <p>6. Document the procedure in the patient's chart.</p>						
Employee Signature:	Date:					

CLABSI Competency for CHV RNS: Central Line Dressing Change- 2023						
Printed Employee Name:	Initials:	Unit:	Competency Statement:	Competent:	Not Competent:	Signature:
<p>Competency Statement: Nurse must understand and demonstrate Central Line Dressing Change procedure as per CLABSI Prevention</p> <p>CLABSI Prevention and Prevention</p> <p>D- Discussion O- Observed</p> <p>Central Line Dressing Change Procedure</p> <p>1. Perform hand hygiene using alcohol-based hand sanitizer.</p> <p>2. Prepare a sterile dressing and disinfectant preparation to cap and disinfect central line.</p> <p>3. Open dressing kit and inspect for damage.</p> <p>4. Place dressing on the line and secure it.</p> <p>5. Discard the dressing kit in a biohazard container.</p> <p>6. Document the procedure in the patient's chart.</p>						
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